| **LESSON PLAN** |
| --- |
| **Faculty** |  | : SH. SOHAN SHARMA |  |
| **Discipline** | : ELECTRICAL ENGINEERING |  |
| **Semester** |  | : 3rd |  |
| **Subject** |  | : ECEE |  |
| **Duration** |  | : WEEKS(From 15/02/2024 to.. june 2024) |  |
| **Work Load (Lecture) per week (in hours)** | : Theory- 03; Practical:02 |  |
| **Week** | **Theory** |  |
| **Lecture****Day** | **Topic** |  |
| **1st** | **1st** | Introduction to the subject and the marks distribution | Introduction to the subject and the marks distribution |
| **2nd** | Purpose of estimating and costing, Performa for making estimates |
| **3rd** | Preparation of materials schedule,  |
|  | costing, price list, preparation of tender document (with 2-3 exercises),  |
| **2nd** | **1st** | net price list, market survey, overhead charges, labour charges,  | Framing of Tender and reply to tender to get job/project |
| **2nd** | electrical point method and fixed percentage method, contingency,  |
| **3rd** | profit, purchase system, enquiries, comparative statements, orders for supply, payment of bills |
|  |  |
| **3rd** | **1st** | Cleat, batten, casing capping and conduit wiring,  | Continued |
| **2nd** | comparison of different wiring systems, selection and design of wiring schemes for particular situation (domestic and Industrial).  |
| **3rd** | Selection of wires and cables, wiring accessories  |
|  | Use of protective devices i.e. MCB, ELCB etc. Use of wire-gauge and tables ( to be prepared/arranged) |
| **4th** | **1st** | Domestic installations; standard practice as per IS and IE rules.  | Identification of wiring for different applications |
| **2nd** | Planning of circuits, sub-circuits and position of different accessories, electrical layout,  |
| **3rd** | Planning of circuits, sub-circuits and position of different accessories, electrical layout,  |
|  |  |
| **5th** | **1st** | preparing estimates including cost as per schedule rate pattern and actual market rate (single storey and multi-storey buildings having similar electrical load)  | Continued |
| **2nd** | Quiz No. 01 and assignment no. 01 |
| **3rd** | ndustrial installations; relevant IE rules and IS standard practices, planning  |
|  |  |  |
| **6th** | **1st** | designing and estimation of installation for single phase motors of different ratings, electrical circuit diagram, starters | Quiz No. 01 and Viva Voce |
| **2nd** | , preparation of list of materials, estimating and costing exercises on workshop with singe-phase, 3-phase motor load and the light load (3-phase supply system) |
| **3rd** | Service line connections estimate for domestic and industrial loads (over-head and under ground connections) from pole to energy meter. |
|  |  |
| **7th** | **1st** | Test of Chapter No. 3.3 |  |
| **2nd** | Transmission and distribution lines (overhead and underground)  |
| **3rd** | Test of Chapter No. 3.3 |
|  |  |  |  |
| **8th** | **1st** | planning and designing of lines with different fixtures, earthing etc. based on unit cost calculations | Continued |
| **2nd** | Test of Chapter No. 4.1 |
| **3rd** | Substation: Types of substations,  |
|  |  |
| **9th** | **1st** | substation schemes and components | Prepare an estimate for service connection for residential building having connected load ---- kW. |
| **2nd** | Estimate of 11/0.4 kV pole mounted substation up to 200 kVA rating, earthing of substations,  |
| **3rd** | Key Diagram of 66 kV/11 kV Substation |
|  |  |
| **10th** | **1st** | Single line diagram, layout sketching of outdoor, indoor 11kV sub-station  | Continued |
| **2nd** | Continued |
| **3rd** | Single line diagram, layout sketching of outdoor, indoor 33kV sub-station |
|  |  |
| **11th** | **1st** | Test of Chapter No. 4.3 | Quiz No. 02 and Viva Voce |
| **2nd** | Quiz No. 02 and Assignment no. 02 |
| **3rd** | Exercise: tender – constituents finalization, specimen tender  |
|  |  |
| **12th** | **1st** | Continued | Visit a nearby substation and list the components with diagram |
| **2nd** | Test of Chapter no. 05 |
| **3rd** | Quiz No. 03 and Assignment no. 03 |
|  |  |
| **13th** | **1st** | Revision test of Chapter No. 01 | Continued |
| **2nd** | Revision test of Chapter No. 02 |
| **3rd** | Revision test of Chapter No. 3.1 |
|  |  |
| **14th** |  | Revision test of Chapter No.3.2, 3.3 | Internal assessment and Viva Voce |
| **2nd** | Revision test of Chapter No. 4.1 |
| **3rd** | Revision test of Chapter No. 4.2 |
|  |  |
| **15th** | **1st** | Revision test of Chapter No. 4.3 | Internal assessment and Viva Voce |
| **2nd** | Revision test of Chapter No. 5 |
| **3rd** | Revision test |
| **4th** | Revision test |